DOCUMENT RESUME

ED 212 610 SP 019 635

TITLE A Handbook of Ideas for Curriculum Improvement.
INSTITUTION Iowa State Dept. of Public Instruction, Des Moines.
PUB DATE 81
NOTE 41p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Change Strategies; Curriculum Design; *Curriculum Development; *Curriculum Evaluation; *Educational Change; Elementary Secondary Education; Inservice Teacher Education; Long Range Planning; *Needs Assessment; *Program Implementation; Teacher Participation

ABSTRACT

This booklet presents a model for changing an elementary and secondary school curriculum. In the first section, forms and resources are provided for analyzing change at the local level. The second section offers the following step-by-step guidelines for curriculum development: (1) identify components of the existing curriculum; (2) focus on skills and content which are related to the stated problem or concern; (3) identify gaps and overlaps in the area chosen for improvement; (4) create objectives; (5) list all grade level objectives related to the stated problem or concern; (6) determine the distance between what is and what has been suggested, make recommendations, and search for solutions; (7) develop, adapt, and select learning activities to meet objectives listed for each grade level; and (8) identify ways in which all courses on one grade level can be supportive of the listed objectives. Accompanying discussions of each of these steps are forms that may be filled out to clarify thinking on that topic. Brief instructions are given for implementing and evaluating the plans for change. The third section of the booklet presents basic principles for the involvement of faculty members in change procedures through staff development and inservice experiences. Included in this section are discussions of involvement and commitment on the part of teachers and administrators. Sample planning forms are presented, as well as an inservice evaluation form. Appended are a statement on the essentials of education, a checklist for basic skills instruction, and a list of ways in which students can be helped to learn. (JD)

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A Handbook of Ideas for Curriculum Improvement

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Where Does One Begin?

We've been told time and again how, when, and where to begin improving the local educational scene. Books blossom with flowcharts; speakers point out attractive transparencies; journal articles provide lists of priorities and somehow, the models appear both similar and simple.

On the other hand, the proliferation of advice and rules in recent years is mind-boggling. The very nature of change in education, planned and unplanned, makes it difficult to know where to begin and how much to bite off in the first chunk.

Change is inevitable and will happen whether or not it is planned. But teachers and administrators are in the business of improving the content and process of education. Therefore, the change process in schools should be analyzed, planned, and evaluated for its effectiveness in improving the educational experiences of students.

Change is not an event; it is a continuous process. Like a river, it has a beginning and an ending but its life is a constant flow with input from related tributaries of efforts and connected to a never-ending cycle of renewal.

This booklet was designed to meet the needs of educators who are concerned about the improvement of local curriculum. But, as stated previously, there are many such booklets. The intention here is to simplify the process of focusing on the action, fully recognizing that the theoretical framework supports that action. The process begins by actively examining what **is** and drawing participating educators into contracting what **is** with what **should be**.

Time and money are scarce resources. The suggestions in this booklet are based on the knowledge that scarcity exists. Therefore, the number of suggested large group sessions is limited and the size of the chosen project is based upon practical considerations. The format is flexible. The booklet may be used entirely or selectively. The same sections may be used by different people at different times. Pages may be used by individuals, small committees or total faculty.

Pick and choose;

Adapt rather than adopt.

Every situation is different

Flexibility is a key.

. . . And How Much at Once?

Who can determine the task for another? It is impossible for anyone outside a particular situation to determine how large a job should be undertaken. Too many unknown factors are involved — interest, willingness, time constraints, commuting distances, priorities, faculty climate, abilities, etc.

Some faculties may wish to focus on a two-year study of a K-12 skill, such as reading, and analyze the impact of that skill on all other subjects. Other faculties may wish to spend six weeks considering the value of social studies content and skills in the primary.

The length, breadth and depth of the curriculum project undertaken locally should be based upon:

- the need for change as perceived by school and community in order to meet established educational standards
- the readiness and previous experience of professional educators in the processes of curriculum articulation, development, implementation, and evaluation
- availability of help from Area Education Agency consultants and other outside resources

It is better to begin small and succeed BIG, than to begin BIG and fail.

A Word of Caution

Forms proliferate in this booklet. That's good for some people and situations; not so good for others.

A form generates ideas . . .
but limits creativity.

A form provides direction . . .
but discourages discovery.

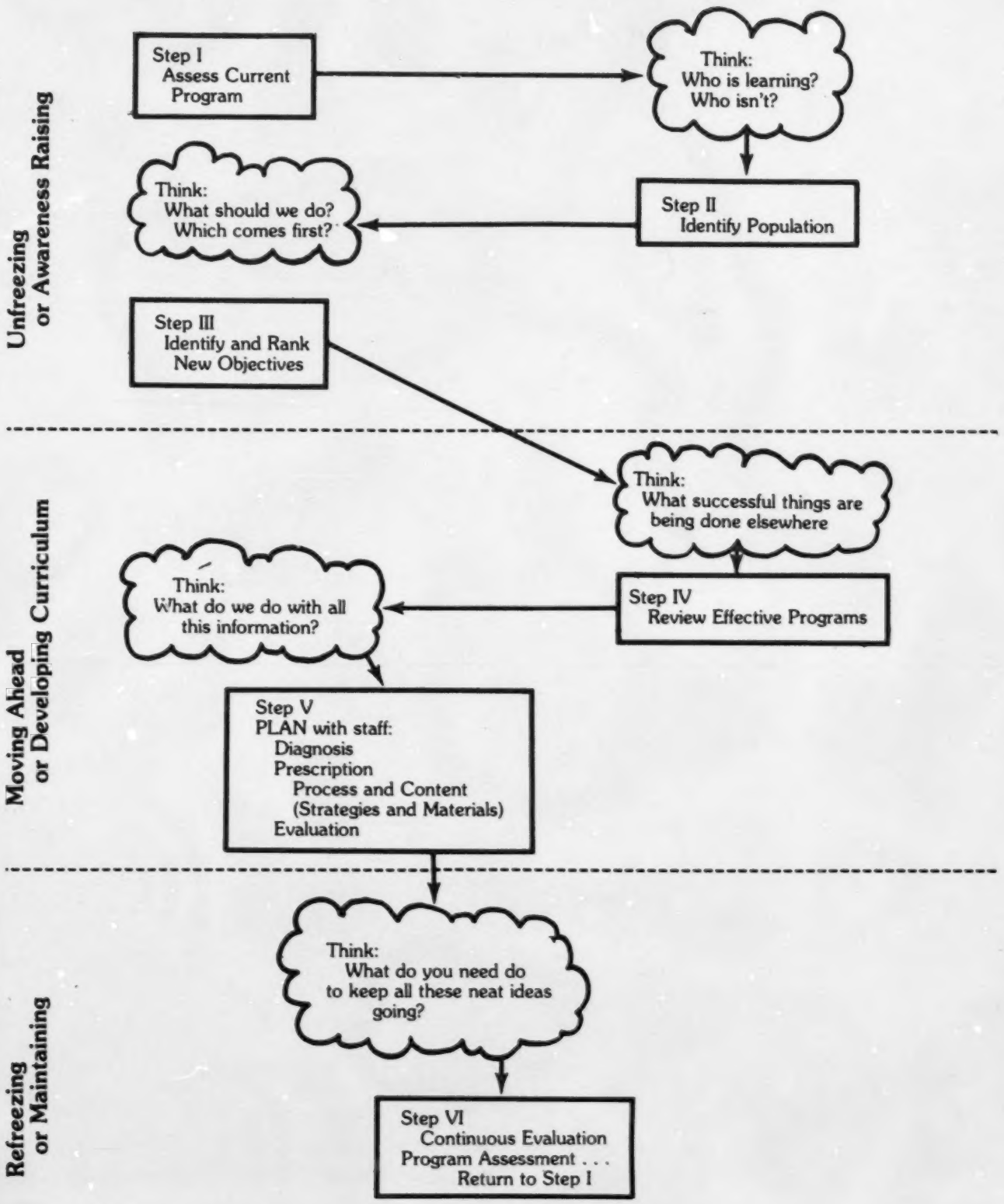
A form classifies concrete information . . .
but ossifies the abstract.

A form encourages uniformity . . .
a leader utilizes differences.

Good news . . .

Change Can Be Planned!

Stages and components of change
analyzed for local use


Unfreezing
or Awareness Raising
Step I
Assess Current
Program
Think:
Who is learning?
Who isn't?
Step II
Identify Population
Think:
What should we do?
Which comes first?
Step III
Identify and Rank
New Objectives
Moving Ahead
or Developing Curriculum
Think:
What successful things are
being done elsewhere
Step IV
Review Effective Programs
Think:
What do we do with all
this information?
Step V
PLAN with staff:
Diagnosis
Prescription
Process and Content
(Strategies and Materials)
Evaluation
Refreezing
or Maintaining
Think:
What do you need do
to keep all these neat ideas
going?
Step VI
Continuous Evaluation
Program Assessment . . .
Return to Step I

A Model for Change

Consider the term "change." Change for the sake of change is of no value. An important role for the leader, or change agent, is facilitator of effective self-evaluation. In other words, the district school or teacher needs to consider the following questions?

1. Where are we?
2. Where do we want to be?
3. Is there a distance to travel between the two? Is change really necessary?

Flexible practice based on theory is important to an effective change agent. Change theory is easy to find, less easy to understand. Models, designs, flow charts abound. Unfortunately, all these messages are frequently conflicting. The chart on the preceding page was designed for use in practical ways.

Several charts and ideas were examined in order to put together one coherent design. Kurt Lewin's change model includes the process steps, "unfreeze, move forward, and refreeze". Since "freeze" is not a popular term in wintry Iowa, it is clarified by familiar terms in education, "awareness raising, developing curriculum, and maintaining." The American Association of School Librarians and Rights to Read both developed essential component lists for flow charts. Both were consulted in the development of this chart which attempts to integrate the components of each.

Note that the chart includes both steps and the thought processes which lead to those steps. BUT . . . a word of caution: three valuable components have been left out. It is up to the user of the chart to *add those components* as individual situations dictate.

The MISSING COMPONENTS are:

- **Title** — Call this chart a number of things based on current need. Call it "Change Process" or "Curriculum Planning" or "Design for Action in District X" for real personalization. Add the title that directs attention to the process from the perspective selected.
- **Commitment by the administration** — Persons in administrative positions not only possess formal and personal power, but also control policy and the allocation of resources, both of which are necessary before any meaningful change can take place. But the timing in obtaining that commitment may be flexible. Some cases require commitment before any action is taken; other cases rely on assessment data and population identification before making full commitments. Add this component mentally when planning, or orally when discussing the process with a group.
- **Staff Inservice** — A staff that plans together, inservices together and stays together. Again, different situations call for involvement of the staff in different steps. This is another component to be added when planning alone or in a group.

These are a variety of ways in which the chart can be useful. First of all, because important components are added to it, the chart retains the flexibility required in planning. Here are some specific ideas:

- Use it as a model to guide development of materials to be used in various stages of curriculum development by a faculty.
- Use it as an overhead transparency to explain a process to a faculty or group of administrators. Be sure to allow flexibility in adding the components and in changing or adding steps to suit the situation.
- Use it as a handout for group consideration of a process which the group will help modify.

The Law of Iowa says:

280.12 Evaluation of educational program. The board of directors of each public school district and the authorities in charge of each nonpublic school shall:

1. Determine major educational needs and rank them in priority order.
2. Develop long-range plans to meet such needs.
3. Establish and implement continously evaluated year-by-year, short-range and intermediate-range plans to attain the desired levels of pupil achievement.
4. Maintain a record of progress under the plan.
5. Make such reports of progress as the superintendent of public instruction shall require.

The Next Two Pages . . .

provide an opportunity to work with brief definitions of important components in long-range school planning as required by law. The ideas and forms are intended to raise questions of contrast between what **is** and what **could be**.

Use the pages to:

- guide personal thinking about overall planning for change.
- aid a committee in considering all the necessary components of change.

Local Use of Terms

Directions: These terms frequently appear in planning. What are the current local implications of each term? Write briefly how each is performed and who is responsible for the task.

- **Needs Assessment** - determination and ranking of major educational needs.
  Performed locally by the following method: _____
  _____
  _____
  Responsibility: _____

- **Curriculum Articulation** - clear explanation of the scope and sequence of content and skill development of students K-12.
  Performed locally by the following method: _____
  _____
  _____
  Responsibility: _____

- **Curriculum Development** - improvement of pupil experiences that take place under the guidance of the school.
  Performed locally by the following method: _____
  _____
  _____
  Responsibility: _____

- **Curriculum Implementation** - improved content and process put into action within the classroom.
  Performed locally by the following method: _____
  _____
  _____
  Responsibility: _____

- **Staff Development and/or Inservice** - experiences for staff members which lead directly or indirectly to improved instruction.
  Performed locally by the following method: _____
  _____
  _____
  Responsibility: _____

- **Community Relations** - flow of information between school and community about the supply and demand of local educational efforts.
  Performed locally by the following method: _____
  _____
  _____
  Responsiblity: _____

- **Testing** - formal and informal measurement procedures to determine if instructional objectives have been met.
  Performed locally by the following method: _____
  _____
  _____
  Responsibility: _____

- **Evaluation** - use of measurement results in determining effectiveness of program and procedure.
  Performed locally by the following method: _____
  _____
  _____
  Responsibility: _____

Plan for Change

Specific components of planned educational improvement appear and reappear in the literature. Each author seems to have a preferred order and slightly different priorities. Rarely is it possible to adopt a plan or model for local use. Instead it is important to adapt for local use.

Charts or plans or models of change are deceiving because they appear static in print. Even the arrows don't help much and we are left with a feeling of complicated, inflexible steps of concrete procedures that are still too abstract to fit the local situation. Furthermore, the very important dimension of time is implied, but the printed model's message lacks impact on that point. Positive change takes time and patient planning. Remember that deep mountain snows thawing too quickly cause rampaging destructive floods downstream.

The key lies in flexible adaptation of a visual plan for local use. Furthermore, effective planning for educational change is reliant upon the nature of the identified problems.

- What is the problem or concern which requires local attention? _____

_____

_____

The answer is probably based on an informal or formal needs assessment. In other words, the planning process has already been launched.

What next?

- Cut out the boxes below.
- Arrange them on another sheet of paper in a manner which makes sense in locally solving the stated problem.
- Add additional components as needed.
- Complete the visual with arrows indicating order or flow.
- Talk about the visualized process and rearrange it until all involved are satisfied.

Needs Assessment	**Curriclum Articulation**
Curriculum Development	**Curriculum Implementation**
Staff Development and/or Inservice	**Community Relations**
Testing	**Evaluation**

Sources of Help

Not all the answers can be found in any single volume or person. Turn to a variety of sources for help in piecing together the solution for a local problem or concern. Each listed source of help is ready to provide a variety of support materials. Ask what's available. Sources include:

Area Education Agency
Educational Services Division
Media Division
Special Education Division

Iowa Department of Public Instruction
Instruction and Curriculum Division
Grimes State Office Building
Des Moines, IA. 50319

Cooperative Network of Inservice Resources (CNIR)
800-742-7821
Area Education Agency 6
210 South 12th Street
Marshalltown, Iowa 50158

Association for Supervision and Curriculum Development (ASCD)
225 N. Washington Street
Alexandria, Virginia 22314

Don't forget to query the professional organizations devoted to the improvement of instruction in specific content areas. Add to the list.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Curriculum Change: Step By Step

Steps for involvement of faculty
in curriculum articulation, development,
implementation and evaluation

Inservice Staff Development
is an intricate part of Curriculum Change.

Information found in the section, "Everyone Gets Involved" (p. **25**) should be considered as a basis for helping the faculty work together.

The Present Situation

Curriculum change involving local educators is inservice. Everyone learns together in a joint effort for improvement.

Together it is possible to examine the present situation of the curriculum.

Together it is possible to build a sequential list of K-12 objectives.

Together it is possible to select activities with a scope reaching into other grade level subject areas.

A subject's scope (breadth) and sequence (arrangement by time and difficulty) is important information for each teacher. A well-designed K-12 curriculum is built upon a scope and sequence arrangement which helps students prepare for the mastery of increasingly difficult subject content and skills.

The scope and sequence arrangement is a system which changes when any part of it changes. Changes occur when a teacher is hired or retired, when a new textbook is purchased, when the student population alters in number or nature, when a course is initiated or dropped, when a state guideline is introduced, when the community makes a request, or when the second grade misses a unit because of snow days.

When any part of the scope and sequence changes, the school's curriculum changes whether or not any of those changes are discussed. Change is a fact of life and curriculum is a living, changing pattern of learning.

Faculty members need to know about unplanned changes so they can plan to work around them and continue to meet standards established by a locally approved scope and sequence arrangement. *NOTE: An activity to develop awareness of educators' responsibilities is located on page* **31**.

STEP 1: Identify components of the existing curriculum.

Teachers generally know what they plan to teach each year and their plans are built on the expectation that each of their students will have already mastered some knowledge of content and skills. The kindergarten teacher will talk about time on a clock to students who already associate "breakfast" with "morning." The tenth grade geography teacher will instruct students about the extent of the USSR assuming they already know the continents, time zones, longitude, latitude, climate types, and percentages.

Teachers know that their students differ in ability, but they make assumptions about the knowledge their "average" students possess. But they rarely have the opportunity to discuss those assumptions with the teachers who are assumed to have taught that body of knowledge. Does the eighth grade U.S. history teacher know what the fifth graders were taught about the same topic?

Lists created by each teacher reveal their assumptions about prior knowledge of content and skills.

- Distribute copies of the "Expectations" page to faculty members and ask that they complete the page according to the directions.

Expectations

Course _____ Level _____

Teacher _____ Grade _____

Directions: Pretend it's Labor Day Weekend and as you relax after a picnic, you do a little advance planning. You don't know your new students very well, but you do know what they should learn in the coming school year. In order for them to learn what you are going to teach, you expect they will already have some knowledge and skills. List below the content and skills that you believe your students must have in order to **begin** learning what you will teach.

Content:

Skills:

Moving On . . .

STEP 2: Focus on skills and content which are related to the stated problem or concern.

Lists of "Expectations" completed by teachers in STEP 1 will be broad and will differ from each other in levels of complexity. Many teachers will point out that students of different ability levels enter their room each fall. It's necessary to narrow the focus on study before everyone involved becomes overwhelmed with the task at hand. (See Adult Learning Theory, p.27) Encourage teachers to think of the "average" student as they work, explaining that modifications for the less capable and more capable will appear in plans during a later step.

- Focus attention on the problem stated previously on the page titled "Plan for Change" or . . .
- Determine the problem at this point through discussion with faculty members. What areas of the curriculum create the most confusion?
- When the problem is clearly stated, ask teachers to return to their lists of "Expectations" and place a check beside each item they wrote which pertains to the problem chosen for study.

STEP 3: Identify gaps and overlaps in the area of curriculum chosen for improvement.

As teachers focus on specific areas of the curriculum, their lists and oral explanations may reveal expectations of mastery in content and skills which have never been taught. On the other hand, revelations of repetition may appear.

- Encourage teachers to meet in groups representing only two contiguous grade levels at a time. (For example: K & 1, 2 & 3, etc.) During the meeting, teachers should share their checked items on their own "Expectations" sheets. Is there agreement between the grade levels?
- Suggest that teachers turn to sources of help when needed. They might examine the curriculum of other districts, visit different classrooms, borrow materials, and/or ask for consultant help.
- Distribute copies of the page titled "Focus" to teachers meeting in small groups. When concensus is reached through discussion, each teacher should complete a personal copy of the page.
- Shift members of small group meetings so that represented contiguous grade levels are combined differently. (For example: 1 & 2, 3 & 4, etc.) Again consensus should be recorded on "Focus" sheets following discussion.

Result: These small group meetings between two contiguous grade levels should result in uniform statements on the "Focus" form. For example, the **entry level** statements for content and skill in second grade should be the same as the statements made about content and skill **learning** in first grade. Furthermore, the **learning** in the second grade and the first grade should match the **entry level** items for the third grade.

Focus

Course _____ Level _____

Teacher _____ Grade _____

Identified Problem or Concern: _____

_____

- Focus on **Content** of _____

At entry level, students should know:

During the course, students should learn:

- Focus on **Skills** of _____

At entry level, students should be able to:

During the course, students should learn to;

Moving On . . .

Vertical Articulation

STEP 4: Rephrase items from "Focus" lists into objectives.

When all the small groups of teachers meeting in contiguous grade level sessions have reached consensus, each grade level will have a distinctly different list of content and skills to be learned. (Entry level statements are repetitious at this point. Their purpose has been served in generating discussion between grade levels. Direct attention to that which is to be learned at a given grade level.)

- Ask teachers to rewrite as a content or skill objective each item to be learned during the school year.

NOTE: Some teachers may have automatically completed this task as part of their "Focus" step. Other teachers will appreciate meeting in grade level groups to write objectives. Such teachers may wish to seek the supportive aid of consultants or materials detailing the method of writing clearly measureable objectives.

STEP 5: List all grade level objectives (K-12) related to the stated problem or concern.

Individual grade lists of objectives created in the previous steps should be combined into one K-12 list.

- Circulate one copy of "Articulated Curriculum Sequence" and ask a faculty member from each grade level to enter their objectives. (Or ask a typist to compile the list from objectives submitted by teachers.) More than one page will probably be necessary to contain a K-12 list.
- Make enough copies for all staff members to review.
- Encourage reflection and criticism, particularly in the search for gaps, which are frequently harder to identify than overlaps.

NOTE: This is a good time to distribute three-ring notebooks to the faculty. The first and all succeeding "Sequence" lists should be dated, then reviewed and revised periodically. Why a three-ring notebook? Because it's flexible and so is a living, growing curriculum.

Eventually the notebook will contain pages of:

- Articulated Curriculum Sequence
- Activities
- Articulated Curriculum Scope
- Evaluation and Recommendations

Each teacher should have his or her own copy in addition to the master copy kept by the administration.

Vertical Articulation for Grades _____ Date _____

Articulated Curriculum Sequence

Brief Description of Curriculum Area or Topic Studied: _____

Grade	Content	Skills

Moving On . . .

Identification of Problems — Evaluation Process Launched

STEP 6: Determine the distance between what is and what has been suggested, make recommendations, and search for solutions.

Objectives listed on a tidy chart may or may not relate to actual classroom learning activities. That fact has been the worst criticism of curriculum guides which gather dust — the written curriculum does not reflect the curriculum in action.

When teachers have had the opportunity to review the "Sequence" list, they are ready to identify strengths and weaknesses in existing materials and activities which are intended to meet specific objectives.

- Distribute copies of the page entitled "Evaluation and Recommendations" to be kept with other pages in each teacher's curriculum notebook.
- Ask teachers to write out any problem which they identify individually or as a group when reviewing the sequence of content and skills.

This page, "Evaluation and Recommendations," should be used repeatedly throughout the entire process of curriculum articulation, development, implementation, and evaluation. Encourage teachers to be very specific in stating the problems. For example,

"The content listed for grade three is too lengthy to be handled in the allotted time."

- or -

"The skills listed for fourth grade are not challenging and were probably mastered at age five."

- or -

"Where will we get materials to teach the content and skills listed for grade ten?"

Sometimes the person who identifies a problem has a recommendation and ultimately becomes the person to provide a solution. But, more frequently, a problem is identified by one or more teachers and recommendations are generated by the group. Sometimes the problem is so involved that it takes a meeting of the total faculty to generate a recommendation and the solution may come through contact with outside sources of help.

The purpose of this activity is to continaully encourage open dialogues about the present curriculum situation and necessary improvements. This purpose is recognized as very important in light of the fact that many problems are verbalized when changes come too fast. It is an entirely human characteristic to resist change. The group process of airing problems, considering alternatives, choosing a recommendation and searching for a solution is a process which allows people to cope with and effectively manage changes in their teaching environment.

Evaluation and Recommendations

Identified Problem	Recommendations	Solution

Moving On . . .

Curriculum Development

STEP 7: Develop, adapt, and/or select learning activities to meet objectives listed for each grade level.

Curriculum development is not a matter of ordering a new set of textbooks and asking the salesman to spend an August Wednesday afternoon with the faculty to explain their use. Faculties following the steps of vertically articulating objectives take their school's curriculum under their own control. Such faculties are involved in their own commitments for curriculum improvement.

"Curriculum development" is an awesome term; "activity writing" is more manageable because it implies bite-sized chunks. Not all activities generated by a faculty will or should be original ideas. Teachers borrow, adapt, revise, and synthesize ideas from a variety of sources. The sum total of learning activities adds up to a curriculum developed to meet the listed objectives.

- Distribute copies of page titled "Activity #____" to all members of the faculty. Ask them to fill out the requested information for discussion and sharing at a meeting.
- Encourage teachers to use a variety of sources available through the local Area Education Agency and professional organizations. (See Sources of Help)

NOTE: The term "Activity" is used here to avoid confusion with terms such as "units" and "lessons." Some "activities" may cover several days, others may be quite brief depending upon the objectives to be met.

Activity # _____

Course _____ Level _____

Teacher _____ Grade _____

From the Articulated Curriculum Sequence:

Content Objective _____

_____

and/or

Skill Objective _____

_____

Procedure:

Adjustments for Less Capable Students:

Adjustments for More Capable Students:

Materials:

Evaluation Method:

Moving On . . .

Horizontal Articulation

STEP 8: Identify ways in which all courses on one grade level can be supportive of the listed objectives.

Teaching can be a lonely profession — just one person planning teaching, and evaluating — or teaching can be a cooperative effort with shared responsibilities in meeting goals to improve student achievement. Teachers who are involved in group efforts and feel the supportive environment are those who are less likely to suffer "burnout."

Groups of teachers discussing specific learning activities designed to meet chosen objectives begin to share ideas and unify their efforts. This is especially true among teachers interested in the development of the same students during the same year. Positive meetings focused on improvement of skills are quite different from negative faculty room gripes about lack of abilities.

Breadth or scope of curriculum concerns across subject areas will differ depending upon the nature of the concern and the group which meets to discuss it. Some curriculum projects automatically involve several subject areas; others appear at first glance to be limited to one subject. The key point to remember is that the division of skills and knowledge into separate subjects is an artificial one. Essential skills are necessary for success in that big subject called life.

It would be useful to distribute copies of "Essentials of Education" (see Appendix) at this point, if not before. Teachers know from their own experiences that segmented knowledge and skills do not carry over or transfer into application in other areas unless such transfer is encouraged. For example;

- Percentages learned in math can be applied to descriptions of populations or land areas taught in geography.
- Music and art techniques increase reading and writing skills.
- Motor skills developed in physical education aid skill development in other subjects.

Sometimes different subjects are taught by the same teacher; sometimes several are involved. In either case, cooperative effort across subject areas makes it possible for students to recognize the value of learning.

- Encourage meetings between grade level faculty members (whether or not they are directly responsible for the content and skills currently in focus for study.) Ask authors of activities to share their ideas with the total group.
- Distribute copies of "Articulated Curriculum Scope" and ask teachers to discuss ways in which they can be supportive of the listed objectives.
- Encourage teachers to plan cooperatively for mutual benefit and the ultimate benefit of the student.

Horizontal Articulation for Grade _____ Date _____

Articulated Curriculum Scope

Brief Description of Curriculum Area or Topic Studies: _____

Content Objectives:

Skill Objectives:

How can these objectives be cooperatively reforced or supported in other courses? List specific activities.

After the Activity has been tried . . .

Evaluation of Activity #_____

Date of Activity Implementation _____

Duration of Activity: Planned _____ Actual _____

Comments:

Results of Evaluation Method: _____

_____

_____

Was Objective Met?

Reasons _____

_____

_____

Suggestions and recommendations for future use of the activity:

Moving On . . .

Implementation

Putting paper plans into classroom action is front-line implementation. Teachers must consider all their other planned learning activities and decide among other things,

- priority
- sequence within the course, and
- required time

It's a sensitive matter of time and timing. Possibly some other activity will have to go. How will that change affect the total curriculum? (Perhaps that's the next topic of concern.)

The Appendix provides several resources which may be useful as teachers consider implementation methods and evaluation standards.

. . . . And Evaluation

As learning activities are implemented, they and their effect upon students are evaluated. Some methods of evaluation are formal and separated by time from the activity (standardized testing.) Other methods are informal and are included within the activity (classroom discussion.) Both methods should be considered as part of the complete evaluation.

- Distribute "Evaluation of Activity #____" for teachers to complete as they implement their ideas.

- Ask teachers to keep this page in their curriculum notebook opposite the page of plans for the activity of the same number.

Notice that "Evaluation of Activity #____" appears on the left page of this spread, while all other forms appeared on the right. That's the way it should appear in the curriculum notebooks for easy reference. Be sure to punch the three holes on the right side of the copied page.

The use of the curriculum notebook by all teachers is a way of acknowledging that evaluation is a continuous process, as is curriculum articulation, development, and implementation. It's a cycle of professional growth. Teachers only feel they are running in circles if the cycle is pulled out of a closet once every five years for an oil job.

When the curriculum improvement cycle is smoothly operating, all phases are in operation simultaneously somewhere in the building. Notice that evaluation procedures were introduced as a method of airing concern over problems implied in the sequential arrangement of objectives. That same search for problems and solutions should be equated to a continuous search for excellence.

After the cycle is completed . . .

Evaluate the Process

Directions: Think about your involvement and the involvement of others in the process of improving instruction in your school.

The group goal was to _____

_____

What worked well?

What problems developed?

What changes need to be made in the process?

What topic or concern do you feel should be addressed next?

Everyone Get Involved

Basic principles for the involvement
of faculty members in change through
staff development and/or inservice

Involvement = Commitment

Commitment by the administration and board of education is the first step in the recognition that curriculum needs to be discussed, diagnosed, described in writing, and developed continually. When those local leaders accept the concept of curriculum as a living pattern of learning, they will look at all experiences of teachers (in-service, staff development, college work, meetings) as contributing to the curriculum which provides learning experiences for students.

Teachers in all schools, large or small, are already involved in curriculum development. Their activities range from active acceptance of, to passive resistance to change. Nevertheless, they are involved. It takes the committed support of the administration and a continuous faculty process to shift the focus on change to one of positive united effort.

Learning is a life-long process, but learning isn't processed in the same way throughout a lifetime. Adults and children are motivated differently, therefore their learning experiences are more effective if planned with the characteristics of the target group in mind. Educators appreciate being recognized as adult learners.

Modern Adult Learning Theory is presented here as a worksheet. It may be used by:

- an administrator and/or other educational leaders interested in designing appropriate learning experiences for the staff
- an educator seeking optimum learning experiences for professional growth

Foundations of Modern Adult Learning Theory

Directions: Consider each "foundation stone" as a generalization which implies specific local planning. Write ideas for individual, group, or district plans implied by each generalization.

1. Adults are motivated to learn as they experience needs and interests that learning will satisfy; therefore, these needs and interests are appropriate starting points for organizing adult learning activities.
   - How will needs and interests be determined? _____

2. Adult orientation to learning is life-centered; therefore, the appropriate units for organizing adult learning are life situations, not subjects.
   - How will life situations be utilized? _____

3. Experience is the richest resource for adult learning, therefore, the core methodology of adult education is the analysis of experience.
   - How will experience be analyzed and used? _____

4. Adults have a deep need to be self-directing; therefore, the role of the teacher is to engage in a process of mutual inquiry rather than to transmit knowledge to them and then evaluate their conformity to it.
   - How will mutual inquiry be launched? _____

5. Individual differences among people increase with age; therefore, adult education must make optimal provision for differences in style, time, place, and pace of learning.
   - How will differences be accommodated? _____

Source: Knowles, M. *The Adult Learner: A Neglected Species*. Houston: Gulf, 1978, as quoted in 1981 ASCD Yearbook, Staff Development/Organization Development.

Plan for Inservice

Before planning can begin, needs must be assessed. The primary source of need identification is teachers who are eventually to be involved in the inservice activities. But other sources of information should be used, too. Teachers may know what they want; what they want may not always be what they need. (It's hard to know what you need if you're not aware it exists.) Other sources of information should be used too: test results, administrators' observations, and new laws are a few ideas. The stated needs should be compared to discover implications.

I. Needs Assessment Results

Source	Stated Need	Implications
A. _____	_____	_____
_____	_____	_____
B. _____	_____	_____
_____	_____	_____
C. _____	_____	_____
_____	_____	_____

The selection of topic and the determination of the target group is almost simultaneous in many situations. Both are selected after due consideration of the result of the needs assessment as examined in the first step of planning. The target group may be one part of a large group; the topic may be a portion of a larger topic.

II. Topic Selected: _____

III. Target Group: _____

At this point, if not before, members of the target group should be involved in the planning.

The selection of activities is based on the specific objectives determined for that inservice experience. The objectives are, in turn, based upon the result of the needs assessment. (Part I)

The four suggested types of objectives speak directly to the types of impact upon participants which is sought. Briefly, those levels include: awareness (recognition of nature and/or importance of a content or a process), concepts and organized knowledge (intellectual control of relevant content), principles and skills (tools for action), application and problem solving (transfer of ability to classroom situations).

Not all levels may be necessary for one inservice experience, but for effective change, participants must eventually reach the fourth level (D). The best strategies are those which involve participants actively in a variety of ways.

Information source: "Improving Inservice Training: The Messages of Research" *Educational Leadership*, Feb. 1980.

IV. Activities

Level of Impact	Strategies
A. Awareness Objective: _____	_____
_____	_____
_____	_____
_____	_____
B. Concepts and Organized Knowledge Objective: _____	_____
_____	_____
_____	_____
C. Principles and Skills Objective: _____	_____
_____	_____
_____	_____
_____	_____

D. Application and Problem-Solving Objectives: _____

Evaluation must be based on specific objectives. Although the halo effect of pleasant experiences during inservice may be reflected in teachers' attitudes, the focus of evaluation needs to be directed toward determining whether or not specific objectives (listed in Part IV have been met. Questioning then, should not focus on "How good was the speaker?" but on "What skills and/or content were learned?" Measurements of changes in classroom behaviors of students provide the most direct assessment of the value of inservice.

V. Evaluation Methods

Objectives	Short-Range Assessment	Long-Range Assessment
A		
B		
C		
D		

Follow-up activities must be based on the results of the various evaluations to ensure on-going, continuous effort of a supportive nature to the target group. Remember that inservice education is only one part of the total change process.

VI. Follow-Up Activities

Evaluate Your Plan for Inservice

Directions: Place a check beside each characteristic listed below which you have considered in planning inservice. Reconsider your plan in view of those characteristics which you have not checked.

Critical Characteristics of Professional Development Programs

_____ ■ Inservice education should be conducted in a supportive climate of trust, peer support, open communication, and staff commitment to a set of clearly understood norms for functioning in an institution (clear roles, program definition, instruction procedures, goals).

_____ ■ Inservice education goals should be based upon a common set of expectations held by the participants for normative behaviors that are essential to performing their professional roles in their institution.

_____ ■ Successful inservice education requires support from administration and school boards including time, personnel, training materials, and funds to enable the training necessary to implement educational programs in their school district.

_____ ■ Decisions concerning the objectives, experiences, and assessment of inservice education should be cooperatively developed by those involved in and affected by the training program.

_____ ■ Inservice education should be based upon assessed needs of participants. A need is defined as a gap between the expected professional performance and actual performance in the work setting.

_____ ■ Inservice education should model the instructional behaviors desired of participants.

_____ ■ Inservice education programs should be demanding and set high but reasonable standards of performance for participants.

_____ ■ Inservice education programs should have three major components: (1) attitude, (2) pedagogical skills and (3) substantive knowledge.

_____ ■ Inservice education should prepare educators to implement research finding and best practice related to carrying out their job responsibilities.

_____ ■ Inservice education should be decentralized; focus on actual school problems, goals, needs, and plans; and be conducted, whenever feasible, in the school setting.

_____ ■ Inservice education should emphasize use of rewards (such as opportunity, increased antonomy, participation in decision making, increased competence, success, and advancement) which have been shown to promote high commitment and performance.

_____ ■ Inservice education should be based upon clear, well understood, specific goals and objectives that are congruent with institutional and personal goals.

_____ ■ Inservice education should provide options for participants that will accommodate individual professional needs and learning styles (timing, sequence, pace, interests, goals, delivery systems).

_____ ■ Inservice education should be experientially based with opportunities to select, adapt, and try out new professional behaviors in real and simulated work settings.

_____ ■ Central office personnel and school administrators should support inservice education through their participation in training activities with their peers and subordinates.

_____ ■ Inservice education programs should provide for follow-up and "on call" assistance to educators as they use their new skills and understandings in the work setting after they have been trained.

_____ ■ Leadership in inservice education programs should be situational and emphasize authority by competence and expertise rather than by position.

_____ ■ Evaluation of inservice education should be both formative and summative and should examine the immediate effect on participants, extent of transfer to the work setting, and the effect on achieving institutional goals.

Source: *Staff Development/Organization Development*, 1981 ASCD Yearbook.

An Activity for the Faculty

Awareness is a Motivator

It's a rare professional educator who purposely neglects responsibilities. It's also a rare professional educator who fully comprehends the extent, source, and implications of those responsibilities.

Recent polls and interviews indicate that disciplinary methods for keeping order in the classroom are the top priority in responsibilities that the public places upon educators. Some disagree, saying that meaningful curriculum focused on students' needs will increase motivation and reduce need for disciplinary measures. It's a chicken vs. egg debate which has the debilitating effect of frustrating the debators to no end.

A more positive strategy is to involve professional educators in the growth of self-awareness of their own responsibilities and capabilities in controlling their situations. This activity is based upon the criteria listed on previous pages.

- Ask teachers to list their responsibilities as professional educators in the state of Iowa.

Some teachers will list broad generalizations; others will be as minutely specific as chalk dust. Each is an individual.

- Distribute "These are the Rules" and also copies of "The Essentials of Education" (see Appendix) if teachers do not otherwise have access to it.

- Encourage teachers to meet in small groups to discuss their results.

This is a good and natural time for grievances to be aired. Teachers are undervalued by most societal standards and they know it. Allowing resentment to build doesn't help the situation. Finding ways to reward, support and encourage teachers' efforts is possible (even within a tight budget), if the listener is perceptive.

Research indicates that teachers teach as they have been taught. Professionals who are valued as individuals and invited to participate in mutual inquiry will offer the same types of opportunities to their students.

These Are the Rules

Directions: Look back at the list of an educator's responsibilities you wrote earlier. Also examine the rules below and "The Essentials of Education." Beside your listed responsibilities which are based on:

- Rules, place an R;
- Professional standards, place a P;
- Societal expectations, place an S.

IAC 7/1/75 Public Instruction[670] Ch. 3, p. 6

3.4(4) *Teacher.* A teacher shall be defined as member of the instructional professional staff who: *(a)* Holds a certificate, issued by the state board of public instruction, endorsed for the type of position in which employed; *(b)* diagnoses, prescribes, evaluates, and directs student learnings in terms of the school's objectives either singly or in concert with other professional staff members; *(c)* shares responsibility with the total professional staff for the development of educational procedures and student activities to be used in achieving these objectives; *(d)* supervises educational aides who assist in serving students for whom the teacher is responsible; and *(e)* evaluates or assesses student progress both during and following instruction, in terms of the objectives sought, and uses the information thus gained as a basis for developing further educational procedures.

• • • • • • • • •

3.5(6) *Instructional guide for each subject.* Classroom instruction in each subject taught in the schools shall be based on careful planning. The board shall require that a resource guide be developed for each instructional sequence reflecting multicultural, nonsexist approaches, and it shall include a statement of its educational purposes; suggested instructional activities, materials, and content; and a description of the performance criteria useful in evaluating each pupil's progress during the educational sequence.

The curriculum structure and content, instructional materials, and teaching strategies shall reflect the contributions and perspectives of men and women and diverse racial or ethnic groups to the instructional program. Where sex or cultural-racial stereotyping exists in instructional materials, it shall be brought to the attention of the student and supplementary materials shall be used to offset the stereotyping. Multicultural, nonsexist instructional materials shall be adopted at the first opportunity. The curriculum shall include activities which promote an awareness of sexist and cultural-racial bias in the English language.

Anything leftover on your list? _____
Comments:

Anything missing from your list? _____
Comments:

Appendix: Resources

The Essentials of Education

Time on Task

A Checklist for Basic Skills Instruction

Help Your Students Learn

Time on Task: A Visual

Research studies increasingly mention a term which is a focal idea for a time and product-oriented society. "Time on task" sounds like a reference to assembly line procedures in Detroit. Furthermore, the concept of "time on task" is based on logic measured visibly in behavioral terms. It makes sense. Students who spend more time on task learn more about what they've been spending all that time studying.

Coined by the Far West Laboratory in San Francisco, the term combines the measure of time for teaching a topic and the time effectively used by students in learning that topic.

Studies indicate the following facts:

1. Students spend an average of 25% of class time in interaction with teachers or adult supervisors. That's an average of 15 minutes per hour.

2. Students spend an average of 66% of their class time working on independent seatwork. That's an average of 40 minutes per hour.

Both of these facts are visually portrayed in the chart on the upper half of page 35. Consider the percentages in the two facts in light of these two additional facts which are visualized at the bottom of page 35.

3. Students spend an average of 85% of interaction periods being actively engaged in learning. That's an average of 51 minutes for every hour of interacting activity. But remember that fact #1 points out that students spend only a quarter of each hour in that type of activity. Thus four hours of class time may result in 51 minutes of student time on task through interaction activity.

4. Students spend an average of 68% of seatwork periods actively engaged. That's about 41 minutes for each hour of seatwork activity.

In comparing facts #3 and #4, it appears that more student time on task is obtained through interaction activities. The student's mind may wander from a worksheet more easily than from an active discussion.

None of this information should be used to imply that one method of teaching is better than the other. But it is known that students learn in proportion to the time they spend on task. And, it is also known that students tend to stay on task if:

- materials are at an appropriate level of instruction and
- high rates (70% - 80%) of success are experienced by students.

More information about time on task can be found in the Summer 1980 issue of **News Exchange**, published by the Association for Supervision and Curriculum Development, (Vol. 22, No. 3).

Checklist for Basic Skills Instruction

Suggestions for Use:

1. Supply copies to members of curriculum committees for informal evaluation of current curricular attempts to teach basic skills.
2. Share copies with individuals or small groups of teachers to aid discussions of methods of instruction.
3. Share copies with the local board of education to enhance communication about the basic skills.

Essentials of Education

This document is a rare example of agreement among professional educational organizations representing educators at all levels in a variety of discipline areas. It is also a condensed, readable response to the public's conservative call for "back to basics" by a public that is unsure what actually constitutes "the basics."

Note that the document consistently refers to "the essentials" as opposed to "the basics." The difference between the two terms is significant. First, let's note that the dictionary lists each as a synonym for the other. Beyond that, we find that "basic" refers to "a starting point" whereas "essential" alludes to "the intrinsic character, essence, or quality of something."

In using the term "essential," professionals are looking beyond the starting point to where reasoning, understanding, application and evalution lie—all of which are essentials in living capably. The term "basic skills" provides a common basis for understanding and so will continue to be used and over-used in our society. But "The Essentials of Education" provides clarification and the basis (starting point) for further discussion.

Feel free to reproduce the page and use it in a number of ways. Some suggestions include:

- Hand it out in a faculty meeting to launch a discussion on common interests among the various discipline areas.
- Hand it out at an inservice for teachers in one or teamed discipline areas that are about to determine standards for their students' achievement.
- Send it home to parents with a note about local efforts in teaching essentials. Ask for comments or reactions.
- Pass it out to secondary students who are wondering about the value of education.
- Hand it out at a regional professional meeting for reaction and ask for suggestions of practical methods within the discipline area.

Eleven Ways to Help Your Students

Academic Learning Time (ALT) is a term originating from the Far West Laboratory and its involvement with the Beginning Teacher Evaluation Study. Researchers believe that increased ALT promotes basic skills achievement among elementary school children. (See "Time on Task,") *Basic Ideas*, October 1980, p. 4-5.)

"Eleven Ways to Help Your Students Learn" is a list of hints pulled out of the study's final report by *Educational R & D Report*, Fall 1979.

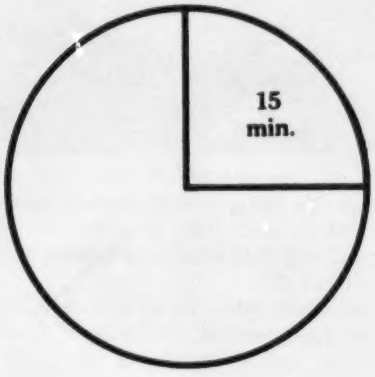
As an inservice response, the questions and their accompanying explanations can be used as a guide for improvement of classroom strategies. Use it if you're a:

- **teacher.** It's an individual resource for a self-evaluation inservice. How do you answer the questions in relation to the research results? Is there any room for change in your classroom strategies?
- **leader of inservice.** Ask participants to respond to the questions in small groups, then provide copies of page 5 for comparison and contrast discussions.
- **principal.** Review the information to determine if there are ways you can provide teachers with opportunities to improve their level of awareness and their skill.

For Every Instructional Hour. . .

Students interact with a teacher or aide

an average of



Students do seatwork

an average of

Time on Task

. . . . . for every hour of interaction:

. . . . . for every hour of seatwork:

Statistics from Research Information Service, ASCD

The Essentials of Education

Society must reaffirm the value of a balanced education.
Leaders of several professional organizations reached this conclusion in 1978. They circulated a statement on the essentials of education among a number of professional associations whose governing boards endorsed the statement and urged that it be called to the immediate attention of the entire education community, of policy makers and of the public at large.
The statement that follows embodies the collective concern of the endorsing associations. It expresses their call for a renewed commitment to a more complete and more fulfilling education for all.
The associations invite the concurrence, support, and participation of everyone interested in education.

Public concern about basic knowledge and the basic skills in education is valid. Society should continually seek out, define, and then provide for every person those elements of education that are essential to a productive and meaningful life.

The basic elements of knowledge and skill are only a part of the essentials of education. In an era dominated by cries for going "back to the basics," for "minimal competencies," and for "survival skills," society should reject simplistic solutions and declare a commitment to the essentials of education.

A definition of the essentials of education should avoid three easy tendencies: to limit the essentials to "the three R's" in a society that is highly technological and complex; to define the essentials by what is tested at a time when tests are severely limited in what they can measure; and to reduce the essentials to a few "skills" when it is obvious that people use a combination of skills, knowledge, and feelings to come to terms with their world. By rejecting these simplistic tendencies, educators will avoid concentration on training in a few skills at the expense of preparing students for the changing world in which they must live.

Educators should resist pressures to concentrate solely upon easy-to-teach, easy-to-test bits of knowledge, and must go beyond short-term objectives of training for jobs or producing citizens who can perform routine tasks but cannot apply their knowledge or skills, cannot reason about their society, and cannot make informed judgments.

What, then, are the essentials of education?

Educators agree that the overarching goal of education is to develop informed, thinking citizens capable of participating in both domestic and world affairs. The development of such citizens depends not only upon education for citizenship, but also upon other essentials of education shared by all subjects.

The interdependence of skills and content is the central concept of the essentials of education. Skills and abilities do not grow in isolation from content. In all subjects, students develop skills in using language and other symbol systems; they develop the ability to reason; they undergo experiences that lead to emotional and social maturity. Students master these skills and abilities through observing, listening, reading, talking, and writing about science, mathematics, history and the social sciences, the arts and other aspects of our intellectual, social and cultural heritage. As they learn about their world and its heritage they necessarily deepen their skills in language and reasoning and acquire the basis for emotional, aesthetic and social growth. They also become aware of the world around them and develop an understanding and appreciation of the interdependence of the many facets of the world.

More specifically, the essentials of education include the ability to use language, to think, and to communicate effectively; to use mathematical knowledge and methods to solve problems; to reason logically; to use abstractions and symbols with power and ease; to apply and to understand scientific knowledge and methods; to make use of technology and to understand its limitations; to express oneself through the arts and to understand the artistic expressions of others; to understand other languages and cultures; to understand spatial relationships; to apply knowledge about health, nutrition, and physical activity; to acquire the capacity to meet unexpected challenges; to make informed value judgments; to recognize and to use one's full learning potential; and to prepare to go on learning for a lifetime.

Such a definition calls for a realization that all disciplines must join together and acknowledge their interdependence. Determining the essentials of education is a continuing process, far more demanding and significant than listing isolated skills assumed to be basic. Putting the essentials of education into practice requires instructional programs based on this new sense of interdependence.

Educators must also join with many segments of society to specify the essentials of education more fully. Among these segments are legislators, school boards, parents, students, workers' organizations, businesses, publishers, and other groups and individuals with an interest in education. All must now participate in a coordinated effort on behalf of society to confront this task. Everyone has a stake in the essentials of education.

—A statement by the American Alliance for Health, Phsysical Education, Recreation and Dance; American Council on the Teaching of Foreign Languages; Association for Supervision and Curriculum Development; International Reading Association; Music Educators National Conference; National Art Education Association; National Association of Elementary School Principals; National Council for the Social Studies; National Council of Teachers of English; National Council of Teachers of Mathematics; National Science Teachers Association; Speech Communication Association.

A Checklist for Basic Skills Instruction

Research results provide guidelines for instruction. Consider your basic skills instructional program in light of these principles.

1. Instruction the basic skills should be continuous and sequential, extending from kindergarten through grade 12.
2. A child's self-concept, the way he views himself, is basic to success in learning. Each child must see him or herself as a valuable person, a person who is able to achieve success.
3. Research clearly indicates that no one method of instruction is superior to any other method for all children. Thus, we cannot adopt a program. Rather, we should adapt instruction to the varying needs and abilities of children.
4. It is normal for differences in ability and achievement to exist in children of the same age. This gap will increase progressively throughout the school experience. Good programs must then accommodate these levels of ability and be characterized by a variety and range of materials. Education authorities emphasize the importance of placing both groups and individuals by needs, not by grade level or textbook.
5. Greater flexibility is essential in teaching beginners. There is no one best age; no one best method; no one best set of materials. Since children vary in intellectual ability, cultural background, and rate of development, it is obvious they cannot be fitted into a rigidly-paced program that is the same for all.
6. Children with problems in learning should be identified as early as possible and specific help provided for them.
7. Efficient communication skills will contribute to the child's ability to interpret both oral and printed problems and messages.
8. Basic skill instruction must be a purposeful, functional part of the total curriculum. A comprehensive program will incorporate skill instruction content areas, thus making every teacher a basic skills teacher.
9. Learning occurs most effectively when children:
   - are actively involved in planning and evaluating
   - participate in many individual and small group activities
   - know exactly what is expected of them
   - chart their own progress
   - help each other
10. Diagnostic teaching is imperative if all children are to succeed. Teachers need to become more efficient in identifying basic skills and matching problems with appropriate corrective techniques and materials.
11. The quality of instruction is more important than either the method or the organization. It is the teacher who provides this key element.

The major goals of basic skills instruction are: to help each child develop the reading, writing, oral communication, and math skills needed to function in today's world and to lead each child into the enjoyment of life-long learning.

Edith Munro, Chief
Basic Instructional Programs
Department of Public Instruction

Eleven Ways to Help Your Students Learn

1. How much time do you allow?
Teachers who allocate more time to a particular content area of the curriculum have students who achieve higher levels than teachers who allocate less time to that content area. The more time teachers spend teaching reading, for example, the greater their students' reading achievement.

2. Are your students actively engaged in learning?
Teachers who increase the amount of time students actually spend engaged in a learning activity will see the difference reflected in increased achievement. Allocating time for reading, in other words, isn't sufficient. The students also must be actively engaged in learning to read.

3. Are students succeeding over half of the time?
Teachers should ensure that the students spend over half of their time working on tasks that provide high success. Students who spend more time than the average in high success activities have higher achievement scores. However, older students (fifth grade and over) and students generally skilled at school learning need a smaller percentage of time at the high success level. Nevertheless, it is seldom, if ever, desirable for students to be given tasks where they experience low success.

4. Can you diagnose your students' skill levels?
Teachers who have the ability to diagnose students' skill levels generally have classrooms where students show a higher rate of engagement.

5. Do your students ask for help too much?
Frequent pupil requests for additional instructions or clarification generally are associated with low success rate. That is, frequent need for explanation may be a signal that changes in the instructional program are needed.

6. Do you have to remind students to work?
Frequently reminding students to "get back to work" when they are off task is ineffective. Students are most likely off task because the activities are too difficult.

7. Do you tell your students about their progress?
The percentage of instructional time during which students receive academic feedback is positively related to student engagement rate and to achievement. Teachers should increase the use of feedback to students about their work.

8. Do your students interact about content?
Direct interaction between a student and a teacher about academic content is associated with increased engaged time and higher achievement, for instance, students who spend more time in small group instruction have higher rates of engagement than students who spend most of their time in independent seatwork and have little interaction with the teacher or others.

9. Do you have help in your classroom?
The use of aides, parent volunteers, cross-age tutors, and peer tutors increases the amount of interactive instruction, thus keeping engagement rates high.

10. Do students work together?
Students who work together to reach academic goals and take responsibility for achieving them generally have higher achievement. Cooperation and student responsibility in non-academic pursuits do not have this effect.

11. Do you reward students?
Within high achieving classes studies, all had some type of positive reward system; e.g., "bionic handshakes," ice cream, teacher praise, or tokens that could be used to earn a prize. Thus, there appears to be value in providing rewards.

Source: Educational R & D Report, Fall 1979.